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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,478	11/19/2003	Junya Amano	086142-0598	3735

22428 7590 06/05/2006

FOLEY AND LARDNER LLP  
SUITE 500  
3000 K STREET NW  
WASHINGTON, DC 20007

EXAMINER

PATEL, DHARTI HARIDAS

ART UNIT	PAPER NUMBER
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2836

DATE MAILED: 06/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/715,478

Applicant(s)

AMANO ET AL.

Examiner

Dharti H. Patel

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8, 10, 13-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10 and 13-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/15/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

DETAILED ACTION

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-7, 10, and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the acknowledged prior art, in view of Mramor, Patent No. 6,167,808. With respect to claims 1 and 4, applicant's prior art (Fig. 3) teaches an initiator 10 that comprises a conductive header 16; a reactant 14 disposed on one side of the header; a cover member 12 for covering the reactant; an electrode pin 18 extending through the header 16 to protrude from the other side of the header, the electrode pin 18 being insulated from the header 16; a heating member 22 provided between the one side of the header and the electrode pin so as to generate heat by the application of electricity as disclosed in the Specification, Page 1, lines 19-20, 23-24, Page 2, lines 3-4 and Fig. 3.

However, the prior art fails to teach or suggest a cylindrical terminal protruding from the other side of the header coaxially with the electrode pin; and a connector-retaining portion provided at a leading end of the cylindrical terminal.

Mramor teaches an initiator for air bag inflator. The initiator 10 comprises a connector pin 64 which includes a cylindrical terminal protruding from the other side of the header coaxially with the electrode pin as disclosed in Col. 2, lines 48-

52 and Fig. 2. Mramor further teaches a connector-retaining portion 96 provided at a leading end of the cylindrical terminal as disclosed in

Both teachings are related by being initiators for an air bag device.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Mramor, which teaches a cylindrical terminal, into the device of the applicant's acknowledged prior art to supply a means of electricity via an electrode pin, which is the preferred means to generate heat for the initiator.

With respect to claim 2, Mramor teaches that the connector-retaining portion is an outward flange provided at the leading end of the cylindrical terminal as disclosed in Fig. 2.

With respect to claims 3 and 6, applicant's prior art teaches that the heating member is a bridge wire as disclosed in the Specification, Page 2, line 24.

With respect to claim 5, Mramor teaches that the connector-retaining portion 96 is shaped like a cone that decreases in diameter toward a leading end thereof as disclosed in Fig. 2.

Claim 7 differs from claim 1 by having a gas generator comprising a gas-generating agent; and the initiator causes the gas-generating agent to start a gas-generating reaction. The applicant's acknowledged prior art teaches that a gas generator comprises a gas-generating agent, which causes a gas-generating reaction as disclosed in the Specification, Page 2, lines 25-27. The applicant's

acknowledged prior art and the teachings of Mramor would apply to reject claim 7.

With respect to claim 10, Mramor teaches an initiator comprising only one electrode pin 64; thereby allowing the initiator to be easily attached to a connector, the pin including a cone shaped connector-retaining portion [Fig. 2, 92] that decreases toward a leading end of the pin as disclosed in Fig. 2.

With respect to claim 13, Mramor teaches that the cylindrical terminal [Fig. 2, 70] surrounds the electrode pin [Fig. 2, 64].

With respect to claim 14, Mramor teaches that the cylindrical terminal [Fig. 2, 70] surrounds the electrode pin [Fig. 2, 64].

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 8 and 15 are rejected under 35 U.S.C. 102(b) as being unpatentable over Mramor, Patent No. 6,167,808. With respect to claim 8, Mramor teaches an initiator 10 which comprises an electrode pin 64; and a cylindrical terminal 70 with an outward flange at a leading end of the terminal for retaining a connector [Fig. 7, the tip 92 is a connector-retaining portion that

retains arm 210 of connector 40a and locks in place]; wherein the electrode pin 64 and cylindrical terminal 70 are coaxial; and wherein the initiator may be mounted in a housing in any direction as disclosed in Col. 2, lines 48-52, lines 17-20 and Fig. 2.

With respect to claim 15, Mramor teaches that the cylindrical terminal [Fig. 2, 70] surrounds the electrode pin [Fig. 7, 64].

3. Claim 12 is rejected under 35 U.S.C. 102(b) as being unpatentable over Hamilton et al., Patent No. 5,686,691. Hamilton et al. teaches an electrical initiator 2 comprising only a single electrical conducting pin 144 configured to connect to a connector having only a single pin jack as disclosed in Col. 1, lines 57-59, lines 63-64 and Col. 2, lines 63-64.

#### ***Response to Arguments***

4. With respect to the arguments regarding the limitation of a connector-retaining portion, tip 92 is a connector-retaining portion that retains arm [Fig. 7, 210] of connector [Fig. 7, 40] and locks in place [Fig. 7, Col. 5, lines 54-66].

5. ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory

period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dharti H. Patel whose telephone number is 571-272-8659. The examiner can normally be reached on 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 571-272-2800, Ext. 36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
BRIAN SIRCUS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2836

DHP  
11/04/2005